

Major Issues facing the NZ Farm Foresters Association¹

Aka the ascent, descent and re-ascent of NZ Farm Forestry Association.

DRAFT as at 5/1/2021

by Hamish Levack

Neil Barr, [1908-1996], a charismatic Kaukapakapa farmer who was enthusiastic about trees, is credited with being the driving force behind the establishment of the New Zealand Farm Forestry Association. [FFA].

Table 1: Timeline of the rise and fall FFA membership.

1950	Neil Barr and friends form the Farm Forestry and Horticultural [Lower North] Association, effectively the first branch of the FFA.
1957	The North Island branches have a combined FFA conference..
1959	The national FFA is formed at the first AGM in New Plymouth.
1963	The FFA constitution and rules established. 2207 members recorded.
1967	2800 members.
1969	2400 members.
1979	3000 members.
1982	3500 members.
1992	4000 members.
1994	Many more than 4000 members. Administration of membership centralised. An Executive officer as well as a part time administration officer are appointed.
1999	Membership decline sets in. Now only 3500 members. Executive officer position disestablished because of lack of funding.
2000 to 2020	Steady decline in recorded members.
2020	Only about 1200 registered members, [i.e. about a 70% loss in recorded members since 1992]

Note: All but the last estimate of member numbers in this table come from Joll Hosking's 1999 book 'Farm -Forestry - The First Fifty Years'. The numbers may not be entirely comparable because the method of estimating membership between years was not always the same. However, the trend and indicative magnitudes are correct.

Why did FFA membership increase until the mid-1990s?

The influence of individuals.

As well as influencing numerous land-owners, Neil Barr's personal appeal, and extensive tree knowledge won strong support from senior NZ Forest Service officers, including prominent directors general like Alex Entrican and Lindsay Poole, and FRI directors of research like Harry Bunn. Magnetic personalities themselves, these people encouraged Neil, and often accompanied him around the country to visit farmers to discuss the advantages of forming FFA branches like the 'Lower North'. FFA membership peaked in

¹The FFA's aim is to promote the wise use of trees for profit, amenity, sustainability and the environment.

the mid-1990s, part of the reason may be that Neil's participation in the FFA ceased then. He died in 1996.

Strong Government support.

However, a more important reason for the growth of the FFA was the extensive Government assistance the FFA received during its formative decades. Every conservancy was serviced by NZFS extension officers who were coordinated by Head Office staff in Wellington. As well as being responsible for administering Government loans and grants to encourage afforestation on private land, these officers were responsible for the wide dissemination of forest knowledge to any interested landowner and, at the same time, they advocated for the FFA. Prominent names that come to mind are Ivan Frost, Gavin McKenzie, Charles Schell, Eric Purnell and John Edmonds. Forestry Encouragement Loans were introduced under the Farm Forestry Act (1962). Landowners could borrow money at modest annual interest rates including a provision for insurance up to the amount borrowed. Then in 1982, the government introduced the Forestry Encouragement Grants, which were really an advance on tax deductibility. From 1 April 1983, all previous forestry incentives were withdrawn, and replaced by a flat rate grant of 45 percent of qualifying costs. However, the Forestry Encouragement Grants scheme was ended in the 1984 budget and replaced by full deduction of plantation establishment and management costs against current income for tax purposes.

Nearly 200 Forestry Encouragement Loans were approved over the 20 years of the scheme's operation. The total area planted under the scheme was 20 000 ha. More than 3 000 Forestry Encouragement Grants were made over the scheme's 13 years of operation. The total area planted was 100 000 ha, but some of it went into the formation of large scale, i.e. corporate, forests as well.

Catchment Boards, which provided subsidies for erosion control plantings, and worked closely with the National Plant Materials Centre at Aokautere, were responsible for many farmers making a start on tree planting. In addition, the work of the Crop research Division of DSIR gave a boost to tree planting for farm shelter.

Jump in forest profitability.

Virtually all this state assistance disappeared by the late 1980s, but New Zealand's economic revolution of 1984-1999 benefited forestry in several ways. Feather-bedding was removed from the labour and transport sectors, making them much more cost efficient. Interest rates came down and rural land, no longer artificially held up by agricultural subsidies, became cheaper for forestry. The Resource Management Act was introduced which meant that it was more difficult for planners arbitrarily to exclude forest establishment from zones that they had previously deemed to be too good for trees. Timber prices were allowed to rise to open market levels. The removal of trade barriers and most foreign currency controls meant the cost of imported machinery was reduced. External factors, including the diminished global availability of tropical hardwoods, the collapse of the Soviet Union wood supply, constraints on American log supply generated by a strengthening local environmental movement, all increased log prices, supercharging the perception of a paradigm increase in forest profitability during the early to mid-1990s. FOB \$/m³ prices for all log grades nearly doubled between 1992 and 1993. Enthusiastic investment in afforestation was the result. Nearly 100,000 ha of new planting occurred in 1993, with a total of half a million ha being afforested by the end of the 1990s. Almost all of it was made by way of small-scale forests i.e. blocks substantially less than 1000 ha in size. Unsurprisingly, a surge in FFA membership accompanied this investment.

Why did FFA membership decrease from the mid-1990s?

Diminished revenue, increased costs, and the attraction of other land uses.

The high log prices and low harvesting costs enjoyed in the early 1990s did not last.

The Russian harvest increased again, shipping rates went up, substitutes for wood appeared, owners, that no longer expected the value of their stands to keep on increasing, began to release more wood on the market, the New Zealand dollar strengthened, and other areas like Canada and Europe increased wood supply, sometimes due to involuntary over-harvesting due to disease. Meanwhile, strengthened environmental, health-and-safety compliance, and other logging costs increased in New Zealand. These things contributed to a downward, albeit fluctuating, trend in log prices and profit. One outcome was even a significant area of conversion of forest back to pasture, particularly to dairy farms on the volcanic plateau. In 2004, for the first time, New Zealand's total net planted forest area decreased instead of showing an annual increase. Since then, overall deforestation has exceeded afforestation rates.

Diminished Government interest in Forestry.

From 1987 to 1998 the Ministry of Forestry [MOF] provided Government with forest extension services, albeit at a much-reduced level, and was able to provide direct policy advice to Cabinet via its own minister. However, in 1998 MOF was subsumed by the Ministry of Agriculture, [MAF], and advice to private forest growers ceased. In a 2005 letter to MAF's CEO, the FFA Wellington branch asked how it was possible to develop a strategic overview for forestry, and an appropriate leadership strategy, when MAF had no senior level staff with forestry degrees, and five different ministers to report to. The letter went on to say that whereas the Chief Executives of MOF, and before that the NZFS, strongly encouraged their staff to be active in forestry organizations to better understand forestry issues, nobody from MAF had attended FFA conferences during the previous two years. Moreover, Government no longer had ex-officio representation on the NZ forest owners association [FOA] or the Forest Industry Council. MAF was structured as if forestry was just another land use like pea growing. Relevant forestry issues were no longer specifically examined from a forestry perspective. This was unwise because agricultural crops and animal husbandry tend to be short term investments, whereas forestry is always a long-term investment. Forestry provides far more off-site environmental benefits, including soil and water, and tends to be far less exploitative in terms of pesticide, fertiliser, and water demand than agriculture. By 2012 NZ fisheries and NZ food safety had merged with MAF, and the organization was renamed the Ministry of Primary Industries [MPI]. The outcome was that any services to forestry that remained were buried further down the Ministry hierarchy.

Cultural Changes.

Most New Zealand organisations, including friendly societies, recreational groups, civic groups, job-related organizations, church-related groups, and clubs now have aging and declining membership. This is attributed to social interaction, via telecommunication, now being much easier, and the increased demands on personal time caused by a more complex and faster pace of life. Forestry organizations have not been immune to these effects. Indeed, the Australian Forest Growers Association (AFG) which was the Australian equivalent to New Zealand's FFA, decided that they no longer had enough members to function as a separate entity, and have now merged, or rather become a subset, of the Institute of Foresters Australia [IFA].

Current state of the FFA membership.

In 2020 Jeff Tombleson carried out a survey to measure the current health of the FFA.

He asked the 25 FFA Branches, how many field days were held, how many members attended each field day, how many members attended the last AGM, whether a newsletter was produced, and, if so, how many editions were produced, during 2019. Branches were also asked whether they had ever discussed the future possibility of closing, and, if so, how many years before such action may have to be implemented. It turned out that branches ranged from being all but moribund to highly active, with one branch showing an outstanding performance. [This latter performance reflects the 'Barr effect'. One or two enthusiastic individuals attract a cluster of enthusiasts that enjoy each other socially, and intellectually, and reinforce each other's voluntary efforts.]

However, the Tombleson 'pulse' survey concluded that the FFA patient was sick, perhaps with a life expectancy of about three years. In some alarm, the FFA Executive has decided to allocate \$10,000 to a review, led by Graham West, to determine what the association should do about this.

Reasons why the FFA membership could re-ascend

General.

Some FFA members are interested in trees for non-commercial reasons only, nevertheless the past surge and decline in membership was clearly linked to people's perception of the commercial profitability of afforestation. Numerous game-changing factors are once again emerging to strengthen the view that forestry is indeed a profitable land use and that information about this will become easier to distribute.

The Emission Trading Scheme should be a circuit breaker.

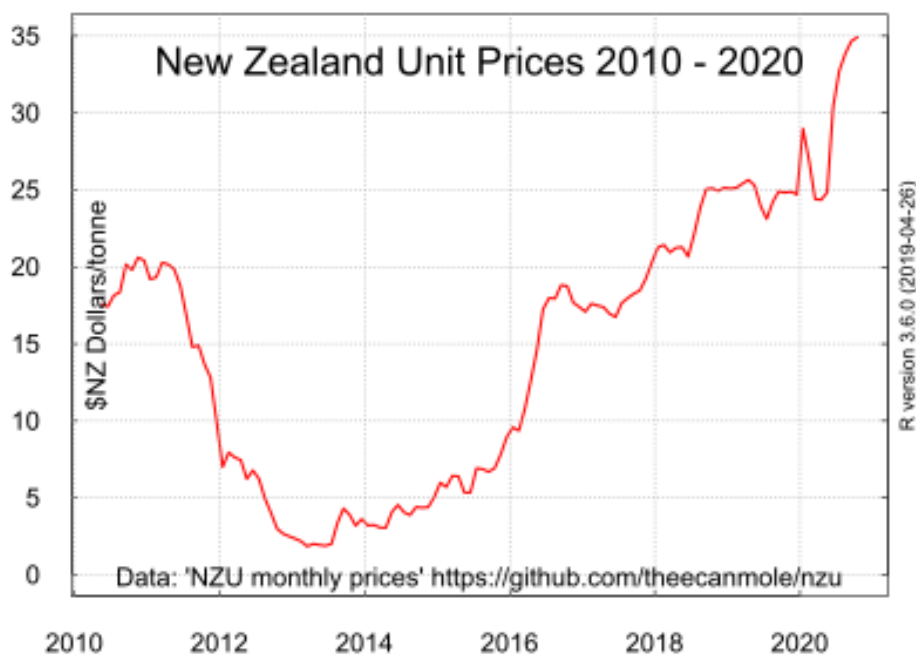
The NZ Emissions Trading Scheme, [ETS], was first promulgated in the Climate Change Response (Emissions Trading) Amendment Act 2008. People who invested in afforestation after 1989 could register the tonnes of carbon, i.e. the New Zealand Units [NZUs], they sequestered and sell them to the emitters of CO₂. At first there was little interest in this scheme because of the obligation to pay the equivalent amount of NZUs that had been sold to emitters back into the Government's ETS register at harvest time, probably at a much higher price per NZU.

This disincentive was eventually overcome by 2020 legislation which allows for averaging - a new method of carbon accounting to be adopted from 2021 onwards - whereby the ETS participant receives NZUs that are equivalent to the long-term, average level of carbon storage across multiple rotations. This system means that liabilities at harvest time are avoided.

Another early problem needed resolution. Instead of the expected rise in NZU value from 2008, the price actually dropped substantially because at the time the ETS was linked to international supplies of carbon credits of less value [viz. the so-called 'hot air' or 'dirty' carbon credits that could be purchased from Central Europe]. In 2014 this anomaly was closed and the price of NZUs began to rise. At first the rise was tempered by 50% free allocations and other transitional assistance to emitters, a price cap on emissions, and the exclusion of agriculture from the ETS, but these dispensations are in the process of being phased out from 2021 to probably 2023.

'Vivid Economics' indicated that a NZU price of at least \$50 a tonne will be needed to meet New Zealand's 2015 Paris commitment to reducing net emissions by 30 per cent below 2005 levels by 2030. At the time of writing, a NZU, which was already almost worth \$38/tonne, could easily rise to \$50/tonne by late 2021.

A sustainably managed radiata pine forest is a store of about 300 tonnes of carbon for each hectare. At \$38/tonne, this means that an entity investing in afforestation would eventually receive \$11,400/ha as once-off inducement.



The Parliamentary Commissioner for the Environment has estimated that New Zealand needs to afforest about another million hectares of pasture if it is to achieve its promises to contribute to the amelioration of the outcome climate change. There are co-benefits of doing this that are not yet fully monetised. However, thanks to ecosystem research carried out by Scion, these co-benefits are being quantified financially, and they probably exceed any direct commercial benefits from the sale of wood that current forest investors are receiving.

We now have a Climate Change Commission [CCC] to provide independent, evidence-based advice to Government to guide New Zealand's transition to a low-emission, climate-resilient economy. It is obliged to provide a a four year strategic outlook, and one year plan, detailing objectives and how these will be delivered. The CCC tells us that drafts of these will be available for consultation by February 2021 and that small scale afforestation will be a vital component. The Climate Change Response (Zero Carbon) Amendment Act 2019 will make it very difficult for the Government to ignore the CCC's recommendations.

Comparison of the profitability and social impact of forestry with farming.

In late 2019, MPI commissioned Pricewaterhouse coopers [PCW] to investigate the relative economics of forestry and hill country farming. Contrary to claims in some quarters, the PWC report found that forestry provided rural communities with more jobs and income, as well as generally providing the land owner with more profit. Moreover, there are good reasons to expect the commercial profitability of afforestation in New Zealand to improve further. Global population and wealth per capita are increasing while the exploitable global forest resource is decreasing. It is true that genetics and better management are improving the yield of plantation wood/ha, but future demands for energy from wood and the financial benefit of embedding of carbon in wooden buildings are likely to more than offset this. [See page 3 of the February 2018 'Tree Grower'.]

A communication break-through that is likely to be of increasing importance to the FFA.

In 2013 the Wellington FFA Branch organized funding to identify all entities that owned forests between 4 and 1000 ha in size. Roger May and Howard Moore are credited with using publicly available remote sensing and cadastral overlay systems to drive this project. It was determined that 14,600 such entities existed, and contact postal addresses were found for most of them. Email addresses of about 20% of these have also been collected.

The Forest Growers Levy Trust, an initiative that greatly strengthens the FFA.

The Forest Growers Levy Trust (FGLT) is a statutorily-endorsed forest industry organisation that was established in 2013 by the FOA and the FFA to manage the proceeds of the newly introduced levy on logs coming from forests. Sooner or later almost all the 14,600 small scale forest owning entities, [SSFO's] will have to pay the levy. Not only does the FFA have the ability to interact with them, but it also provides SSFO representatives on the various FGLT sub-committees that advise on how the levy should be spent. Apart from the 'general forestry good services' resulting from the levy, that FFA members enjoy, the FFA also benefits directly financially, for services provided, e.g. for 2021 the FGLT allocated the FFA annual Conference sponsorship of \$10,000, an administration grant of \$40,000, \$65,000 to assist with communications with SSFOs, and \$50,000 to refresh the postal address database.

Government's new awareness of the importance of forestry should empower the FFA.

Prior to the 2017 general election, both the Labour party and the NZ First party announced that a new Forest Service was needed. The FFA likes to think that it provided the robust justifications for this, [See page 3 of the May 2020 Tree Grower], and was a significant influencer of the outcome. However, probably the key reason was Government's realisation that afforestation had to be talked up if New Zealand was to transition to a low carbon economy. Anyway, together with the Greens, the two aforementioned parties formed a coalition Government in 2017 and Te Uru Rakau [TUR] was formed. TUR falls short of being an organisation as good as the NZFS, and is still embedded, albeit in silo form, within MPI, but, as it develops, its existence should do much to strengthen the FFA. TUR does not yet provide forest extension services, but it was responsible for managing the Government's 'one billion tree' [[1BT] programme.

Since the disestablishment of the NZFS, limited Government grants, like the contestable erosion control funding programme [ECFP] for the Gisborne District, were still available for afforestation, but the 1BT project was a major step up with nearly a quarter of a billion to spend over the first three years of its existence.

On closer inspection the 1BT grants are not particularly generous at an individual recipient level, e.g. TUR provides a \$1,500 incentive to plant exotic trees but claws a good deal more than that back by way of carbon that is sequestered over the first few years of the crop. TUR provides \$4,000/ha to plant native trees but typically the owner will need to contribute another \$6,000/ha to ensure successful establishment. TUR also leases land to carry out its own afforestation.

Additionally TUR has also provided co-funding for certain forestry good projects.

Over the last three years the FFA secured TUR co-funding for (a) piloting the aggregation of small forests, (b) updating information on the best alternative species to radiata pine, (c) trialling cypress clones that promise to be canker resistant, (d) harvesting innovations for small scale forest owners, and (e) equipment production studies. Other projects that will depend on Government money are in the pipeline. The development of an ongoing forestry advisory service is perhaps the FFA's most important aspiration, because it has the potential to do the most to promote the association's aims. Funding from the Government, the FGLT and other sources are likely to be readily forthcoming for a such an advisory service if FFA can get Beef + Lamb NZ, Deer Industry NZ, the NZ Poplar and Willow Trust, and local authorities that are involved in farm plans, (particularly the Horizons Regional Council) to co-operate. Participation with these agencies is essential because they have

much closer contact, than the FFA does, with target hill country land owners that need to understand the net benefits of afforestation.

Government's Forest Industry Transformation plan [ITP] should improve SSFO profit.

Late in 2019, TUR launched its intention to develop a forestry ITP aimed at processing more wood domestically. This is timely because regulations have been introduced to ensure that more wood is used in the local built environment, and much has been made of the potential of technologies that will allow forestry to substitute biocrude oil, liquid biofuels, biochemicals, and biomaterials currently manufactured from fossil fuel. However a number of hurdles have to be overcome if this plan is to be implemented. To get the sustainable supply of logs required for added domestic processing of wood, small scale forest management will have to be aggregated. Aggregation is a prerequisite to an orderly response to the planting spike of the mid 1990s. It would create forest estates that would be managed to reduce risk and to optimize collective profit as well as providing scale economies. This would result in some forests being harvested early and some late, reducing the pressure on contractors, infrastructure and markets, and smoothing the wood supply. That orderly response will need to be combined with new forest planting in the right places. The resultant higher sustainable cut will underpin new investment in domestic processing. For sometime the FFA has argued that the greatest impediment to such small-scale forest aggregation is the lack of an amendment to the Income Tax Act to remove an anomaly that discourages the sale of immature forests. Specifically the 'cost of standing timber' provision of the Act treats the sale of standing trees as immediate income to the seller; while the buyer must wait years to claim his/her deduction against the forest's eventual revenue. TUR and the IRD now say that they agree and an appropriate amendment is in the queue for legislative attention by parliament.

We now have a competent Minister of Forests, Suart Nash.

At the FFA awards dinner last November Stuart Nash affirmed that small-scale forest growers have an important role to play in the increased wood supply, the diversification of species, and sustainable land use. He also advocates converting Te Uru Rakau into a full New Zealand Forest Service that provides regional facilities, supports forest owners, and works in partnership with the private forest sector toward the implementation of sound long term regional and national forestry development plans. There is a good chance that he will be able to get Cabinet to agree with him.

Conclusion.

The FFA is sailing in a favourable wind, and has the opportunity to transform its current strengths and opportunities into substantial gains.